Sanne

RED HILL TASK FORCE

Thursday, October 6, 2016

9:36 a.m. to 11:13 a.m.

ORIGINAL

919 Ala Moana Boulevard, Fifth Floor Honolulu, Hawaii 96814

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MR. KAWAOKA: Why don't we get started.

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There'll be a few more people coming on. That's okay. Good morning, everybody. My name is Keith Kawaoka. I'm the Deputy Director for Environmental Health, Department of Health. This meeting is regarding the field constructed tanks, as required under Act 244. The Fuel Advisory Committee is sort of a by-product of the previous meetings we've had in this task force on Red Hill. And what was outlined in the previous legislative sessions is to identify what we call field constructed tanks, not just regular tanks, but field constructed tanks in general in the state and to give a status of what these tanks are on the island. So that's the purpose of why we're here today for.

As you recall, late in 2015, the Navy provided an update of their field constructed tanks. And today, we're going to have another update, not just from the Navy, also from the Army and the Air Force, if they're here.

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1 Just from a logistics standpoint, the restrooms 2 are located through the door to your left. If it gets kind of crowded, there's also -- you can go down to the 3 fourth floor or other floors for the restroom as well. 4 5 We have a court reporter here, just so long you 6 know, taking notes. It will be used for transcripts for 7 the legislative report that we'll submit. So if you have any questions or discussions as we go through the meeting, 8 9 please identify yourself and give your comment or 10 question. 11 I'd like to have everybody kind of introduce 12 yourselves around the table, if you can. Let's start with 13 Senator Wakai. 14 SENATOR WAKAI: Senator Glenn Wakai. I'm Chair 15 of the Committee on Economic Development, Environment and 16 Technology. 17 Mr. CASEY: Patrick Casey, geologist with the 18 DLNR Commission on Water Resource Management. 19 MR. JOSLIN: I'm Ryan Joslin, the Military 20 Affairs Liaison for Congresswoman Tulsi Gabbard. 21 MS. YAP: I'm Kehau Yap with Senator Mazie Hirono's office. I'm here for Alan Yamamoto, who a State 22 23 Director. 24 MS. REZENTES: Cynthia Rezentes. I'm with 25 Congressional District 1, former Mark Takai's district,

representing that office. 1 2 MR. LINDER: Hello, I'm Steve Linder from the 3 U.S. EPA Region IX, San Francisco. I manage the 4 Underground Storage Tank Program for the EPA Region IX. MR. LAU: Aloha, Ernie Lau, Honolulu Board of 5 6 Water Supply. 7 CAPTAIN EPPS: Good morning. I'm Captain Ken Epps. I'm the Commanding Officer of the Fleet Logistic 8 9 Center here in Pearl Harbor. And we are the operators of 10 Red Hill. CAPTAIN HAYES: Good morning. Captain Rich 11 12 Hayes, the Commanding Officer of Naval Facilities Engineering Command Hawaii and also the Regional Engineer 13 for Navy Region Hawaii. And we work closely with FLC to 14 15 maintain the tanks at Red Hill. 16 MR. POENTIS: Good morning. I'm Aaron Poentis, 17 the Regional Environmental Engineer for Navy Region Hawaii 18 and the Environmental Business Line Coordinator for the 19 Navy Facilities Engineering Command Hawaii, and I work for 20 Captain Hayes. MR. YOMES: Good morning. My name is David 21 22 I'm the chair for the Aliamanu, Salt Lake and 23 Foster Village Neighborhood Board. 24 MR. KAWAOKA: Why don't we go through the audience, too, and introduce yourself, starting with that 25

1	side.
2	MR. LOVEGREN: Tech Manager Lovegren, the field
3	director for FLC Pearl Harbor. I work for Captain Epps.
4	MR. MIYAMOTO: Jimmy Miyamoto. I'm with Naval
5	Facilities Engineering Command Hawaii. I work for Captain
6	Hayes.
7	MR. SIGDA: John Sigda, Intera, working for the
8	Board of Water Supply.
9	MR. JOSEPH: Jim Joseph with Intera.
10	MR. KAWATA: Erwin Kawata with Board of Water
11	Supply.
12	MR. McDONALD: I'm Brian McDonald. I'm with the
13	company Exponent, working with the BWS.
14	MR. EISELSTEIN: I'm Larry Eiselstein. I work
15	for Exponent and consultant for BWS.
16	MR. LINDERFELT: Bill Linderfelt. I work for
17	Intera. I'm working with the Board of Water Supply.
18	MR. TRACY: Joseph Tracy with Intera on behalf
19	of Board of Water Supply.
20	MR. STEWART: Tom Stewart with Mott-Smith,
21	consulting Board of Water Supply.
22	MS. COCKE: Sophie Cocke with the Honolulu
23	Star-Advertiser.
24	MR. CLEMENTS: Tom Clements, Navy Region Hawaii
25	Public Affairs.

1	MR. FLOYD: John Floyd, NAVSUP FLC, Deputy Field
2	Director.
3	MS. SMITH: Danae Smith, NAVSUP Energy and
4	Environmental.
5	MR. GRIFFIN: Rowdy Griffin, Technical Director
6	for NAVSUP Energy.
7	MS. SETO: Joanna Seto, Safe Drinking Water
8	Branch.
9	MR. CHINN: Ronald Chinn with Innovex
10	Environmental Management, as a consultant to the EPA and
11	Department of Health.
12	MR. SHALEV: Omer Shalev, Environmental Engineer
13	with EPA Region IX.
14	MR. PALLERINO: I'm Bob Pallerino with EPA
15	Region IX. I work with Steve Linder.
16	MR. HIGUCHI: Dean Higuchi, EPA Hawaii Office,
17	Public Affairs.
18	MS. KWAN: Roxanne Kwan with Underground Storage
19	Tank Program.
20	MS. PERRY: Thu Perry with the Department of
21	Health.
22	MR. CHANG: Steven Chang with the Department of
23	Health, Solid and Hazardous Waste Branch.
24	MS. BERNIER: Jenny Bernier with DOH Underground
25	Storage Tank.

MS. PAHINNI: Kathleen Pahinni, Board of Water Supply.

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MS. KISHABA: I'm Raelynn Kishaba. I work for Navy Environmental, and Aaron and Captain Hayes are my bosses.

MR. KAWAOKA: Okay. Again, good morning, everybody. The purpose of this task force meeting today is to -- based on Act 244, which specifically asks representatives from DOD to give an update on their field constructed tanks that they own and operate. So, as you see in the agenda, what they'll describe is basically the short- and long-term effects of potential leaks; response strategies to mitigate the effects of these leaks; any methods to improve communications between the Navy, Air Force, Army, and the State, local Board of Water Supply, the public in general, regarding potential leaks that have occurred; any information on groundwater tests that may have occurred for the update; as well as implications for potential shutting down of any leaks that may occur from these facilities. So these updates will be based on the progress made towards these goals, based on agreement with the State, the affected county, and federal government.

So what we'll do is have a series of presentations from the DOD. And then there will be opportunities for questions and answers and inquiries.

Some may be some updates on other areas as well related to tanks in general.

So is there anybody from the Army here to give an update?

MS. PERRY: There were some representatives that were confirmed, but I don't see them here today right now. So I'm not sure. But they did say they did not have any field constructed tanks.

Air Force sent a letter that says they -unfortunately, they're not here -- but that all of their
UST's were taken care of under the joint task or joint
force -- Joint Base. Excuse me.

MR. KAWAOKA: Okay. So that leaves the Navy. Aaron?

CAPTAIN EPPS: I guess, while they're pulling up the brief, I'll give you a 30-second context. For anyone who knows this already, I apologize. But for those of you who are new, I want to give you some background on how our Navy relationships work here on Oahu. So you see the two of us up here. There's really kind of a triad partnership with running DOD fuel here on Oahu and throughout the globe. I represent one Navy entity, which is from Naval Supply Systems Command, and our primary charter is to run and operate Red Hill and the various tanks that we have throughout Oahu, on Kaua'i, etc.

Captain Hayes runs the Naval Facilities

Engineering Command. So as an engineer, like he said, his

Command's responsibility is primarily the maintenance, the

upgrade, and then he owns the engineers and scientists who

are environmental specialists.

So when you hear us talking today, you'll hear me coming from a place of operations and sort of execution. And when Captain Hayes speaks, he will talk more about the modernization, the upgrades, kind of the environmental impact.

The third element of our triad, who's not here, is the Defense Logistics Agency, and they are a combat support agency. I was telling someone today, they're kind of like the CIA. They're military, but they're not. But their primary charter is they are the owner of the commodity here throughout Hawaii. So they are a key partner with us. They are the resource sponsor for us. They write the checks to make sure we're doing what we're doing. And they'll be a key equity stakeholder in anything we do going forward, vis-a-vis our normal operations, and then anything related to any other work we do throughout this AOC process.

So Captain Hayes is going to start with his brief here. Again, this is just an overview of where we are on our tanks. We've got some additional cues that

were popped up here. So anything that he or I can't answer, we've got the right -- the subject matter experts in the audience, and we'll defer to them when we need to.

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CAPTAIN HAYES: Okay. Thank you very much, Ken. What we've got here, this is an update that was given last year. So we're looking at to refresh where we are with the field constructed tanks that we have in operation. So this is just a summary. We'll go into further detail.

We have 31 field constructed tanks in use currently; 23 are either temporarily or permanently out of use; for a total of 54 tanks.

(Ms. Sally Pfenning entered the conference room.)

CAPTAIN HAYES: Again, this just shows the locations of some of the -- on Oahu, the field constructed tank locations and then a representation of drinking water aquifers represented by the green areas in the slide.

And for Red Hill, we have 18 active tanks,

12.5 million gallons each. Two tanks, Tanks 1 and 19, are
temporarily out of use. These are steel-lined concrete
tanks surrounded by basalt rock and installed between 1940
and 1943. We utilize the state of the art Inventory
Management System. And all the tanks, we're putting
through a maintenance cycle, which is subject to modified
API 653 inspections, with a 20-year suitability

inspection. And we'll work on our next inspection site. We're now at 2017 through 2028.

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For leak detections, all the tanks currently undergo an annual tank tightness test and complies with federal regulations. That's also a National Historic Civil Engineering Landmark.

Next, we also have four Red Hill surge tanks. These are four active tanks, 30,000 gallons each. They're an intermediate transfer point for fuel, normally empty except for emergency stowage. Again, they're utilized to pump the fuel up into the other tanks as necessary. These are bare steel, encased in concrete; installed also in the same time frame, in June 1942; also subject to the modified API 653 inspections, last done between 2004 and 2006, with the same 20-year suitability inspection. So their next cycle would be due in 2024 to 2026. The leak detection or the tank tightness test for these were completed in December 2015 and February 2016. No reported releases. And important to note these tanks are not over the drinking water aquifer.

Next, we have tanks at the former diesel purification plant. These are three tanks, 25,000 gallons each; five tanks that are 100,000 gallons each. These tanks are empty. They're concrete tanks that were installed in 1941; temporarily out of use. They were last

used in 1990. And they are included in our 1997 Naval
Base Subsurface Oil remediation -- Remedial Investigation.
There was evidence of a fuel release. Recoverable free product was removed. Monitoring indicates the plume is stable. And the State DOH approved action in 2010.

Demolition and removal actions have started in July 2016.
And these tanks are not over a drinking water aquifer.

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At Kaua'i, again, this is an overview map showing our active field constructed tanks. I should say operating on Kaua'i. Again, the green water represents the drinking water aquifers. And our tanks here at the Pacific Missile Range Facility are not over the water aquifer. Just a little more detail on the fuel farm that we have at PMRF. There's nine active tanks, 50,000 gallons each. They store Jet A. They're welded steel tanks, installed in April 1942. They also are subject to the modified API 653 inspections, that were last done between 2011 and 2012. These tanks have a 10-year suitability inspection, so their next cycle will be due in 2021 through 2022. Leak detection, there's a monthly static leak test performed. No reported releases. As previously referred, these are not over a drinking water aquifer.

So that just provides kind of an overview with the tanks that we currently have in operations both here,

at Kaua'i and on Oahu. 1 2 Any questions? 3 MR. CASEY: One question. On the surge tanks, 4 the four surge tanks, that are -- I'm assuming they're 5 sitting below Red Hill, they're down at Pearl Harbor? 6 CAPTAIN EPPS: So let me give you all some 7 context on the surge tanks, as Captain Hayes mentioned. 8 So their purpose is a two-fold one. If we have an issue with one of the tanks in Red Hill, that's kind of a buffer 10 for us, that allows us to discharge product quickly from 11 Red Hill and hold it for future transfer. But, 12 essentially, when we have to refill Red Hill, we get them 13 from tankers. So tankers come in, as you all know and 14 see, it's at the bottom of Pearl Harbor there, and then we 15 have surge tanks that pump them back up there. So from a 16 geographic perspective, I think most of you 17 topographically are familiar with where Red Hill is. 18 about three and a half miles, as a crow flies, from Pearl 19 Harbor, obviously up at a higher altitude, and the surge 20 tanks are at the bottom of that spectrum, closer to Pearl 21 Harbor. 22 MR. CASE: Thank you. 23 CAPTAIN EPPS: You're welcome. 24 Thanks, Captain. I appreciate the MR. LAU: 25 presentation. Just a question about the 23 that are out

How many actually of the 23, which ones are over 1 2 the drinking water aguifer and which ones of the 23 have 3 actually documented leaks and -- or may be subject to cleanup actions? And can you identify the locations? 4 5 MR. POENTIS: I can answer that. I think, you 6 know, this was clearly talked about in the last previous 7 discussion. And most of the closed-out facilities that 8 are above the drinking water sources or aquifers are these 9 Kipapa Gulch Fuel Storage Annex, which is the top one, on 10 the top row. And that's closed out. And we are working 11 this through the Department of Health's Hazard Evaluation 12 and Emergency Response organization. And I believe there 13 is this other one, Hickam POL, the former storage facility 14 that supported Hickam and Wheeler Air Force Base, and that 15 one is also above or -- above the no-pass line or above 16 the drinking water aquifer, and that's a closed facility 17 under the program, the Hazard Evaluation and Emergency 18 Response organization. So those have confirmed releases. 19 They're under the cleanup program initiated as part of the Air Force program that got converted to Navy management as 20 2.1 part of Joint Base. 22 MR. LAU: Is the Hickam one referred also as 23 the Wai --24 MR. POENTIS: Waikakalaua. 25 MR. LAU -- Waikakalaua?

1 MR. POENTIS: That's correct. 2 MR. LAU: And then I just recently read 3 something actually a -- documents submitted to the water commission, which attached the report, that said 4 5 something -- I wanted to confirm if this was true -- that, over its 50-year history or so, 18 billion gallons of fuel 6 7 went into the facility, but only 14 billion could be accounted for as pumped out of the facility; is that 8 correct? 9 10 MR. POENTIS: I cannot speak to the specific details, but all of that information was a part of the 11 12 public record --13 MR. LAU: Would it be possible for -- at least 14 for the Board of Water Supply -- there's a website or 15 someplace that we can get access to more information --16 MR. POENTIS: Well, all of the records, as far 17 as the cleanup program, not only did the information get 18 provided to the State Department of Health, but we have 19 two -- minimally, two public repositories: One is the 20 University of Hawaii Public Library; and I believe, for 21 this location, it's the Pearl City Public Library, where 22 we keep all of the documents on site. 23 MR. LAU: This is for both? 24 MR. POENTIS: For both. MR. LAU: Is it also -- is the information 25

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available here at the Department of Health?
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              MR. POENTIS: It should be.
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              MR. LAU: I appreciate this information. How
    much was the estimated amount of the releases at each
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    location?
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              MR. POENTIS: I don't have that specific
    information on me.
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              MR. LAU: And then last question: Would it be
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    able -- is this going to be part of a public record and, I
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    quess, made available where we could actually see at least
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    this presentation?
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               MR. KAWAOKA: This presentation (indicating)?
               MR. POENTIS: Yeah, we'll provide that to the
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     Department.
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               MR. KAWAOKA: We'll include that as part of
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     the --
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               MR. LAU: And part of the report?
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               MR. KAWAOKA: Yes.
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               MR. LAU: Thank you.
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               MR. KAWAOKA: Thank you, Mr. Lau.
               Any other questions from the task force members?
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               Senator.
               SENATOR WAKAI: I'm looking at this EPA review
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     of the Order of Consent, and it's 50 pages showing an
     inadequate work plan created by the Navy. Can you give me
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1 kind of just a rough overview on your thoughts on the 2 EPA's evaluation of your submitted work plan? 3 CAPTAIN HAYES: We felt -- maybe I'll let the 4 EPA --5 MR. LINDER: I can explain. The EPA 6 perspective? Or do you want the Navy perspective? 7 CAPTAIN HAYES: Do you want the Navy perspective 8 first? 9 SENATOR WAKAI: Maybe the EPA could set Okay. 10 up what they see are the inadequacies, and you can respond 11 to the 50 pages of inadequacies that they pointed out. 12 MR. LINDER: All right. So, in general, big 13 picture, our concerns with the work plan was -- EPA and 14 DOH's response to the work plan was joint. We and DOH 15 work in a partnership on this AOC effort to address the 16 leak problems at Red Hill. In general, the work plan 17 submitted to us lack the level of detail, transparency, 18 and collaboration that we hoped to see in a work plan. 19 want to make sure that the work is described in a way that 20 gives or, you know, allows for adequate collaboration with 21 the people doing the work, so that we can make sure it's 22 being done to our satisfaction. 23 And then also another problem we saw with the 24 work plan was that, typically, an environmental 25 investigation, you go out and gather data, you analyze the data, make decisions related to the adequacy of that data, and you figure out if additional data -- there's a feedback. It's not a lineal process. And this particular work plan was put together, and it did not adequately describe that typical iterative process of an effective environmental investigation kind of activity.

were also some technical inaccuracies so that a lot of the detailed comments that are attached to the letter described some of those technical inaccuracies in some of the areas where we felt like some of the statements made within the document were not supported by data collected to date. So that's generally the concerns we saw, and that's why we said, "You know what, got to go back and redo this." But that happens. I mean, it happens a lot in these types of projects, where you get work plans that need -- the first shot at it, it does not meet our needs. So this is not -- I wouldn't say this was unusual for the type of work we do.

mean, there were some that are much more substantial, and some of them are more grammatical maybe, they would like it to be formatted in different ways. It was an over 800-page work plan, so for -- you know, you're alluding to 50 pages of comments. You know, there was a lot of time

and effort put into that. The process in developing that work plan, you know, there's a process that's in place for the AOC. We have initial scoping discussions. And after that initial scoping discussions, there was an opportunity that some comments came in from outside subject matter experts; namely, the Board of Water Supply had comments that came in to the EPA and DOH. So that's -- again, we welcome that feedback. That was part of the process. And a portion of the comments that came in were from that outside input that came in to our work plan.

So, certainly, we are accountable for what we produced. And we want to provide a defensible work plan. There were some, as Steve mentioned, maybe some assumptions that we made that weren't quite backed up by data yet. So they asked us to provide some additional information as to the process that we'll go through to get that data. And then once we have that data, what's that iterative process that we'll use to inform the decision-making going forward with how we do the groundwater modeling, data analysis, and what not.

CAPTAIN EPPS: So, Senator, I would say, too, though, so our reaction to it was that, obviously, very few people get this right on the first time. This is unprecedented for us here on Oahu in terms of the scope and scale of Red Hill and having to do this. So we

welcomed it. But the final comment I wanted to add on there was our number one priority is to make sure that this is as collaborative and transparent as possible. So that was the first key for us to make sure that's conforming how we're changing our modus operandi kind of going forward.

CAPTAIN HAYES: Since we received the letter, we've been in contact with EPA and DOH. And actually, just the last three days, in this room, we've had meetings to discuss all the sections of the AOC and the statement of work. For a day and a half of that, the Board of Water Supply was able to participate as well and, again, provide that collaborative feedback as to where we're going to take the product we have now and how we're going to move forward to make it a better product.

SENATOR WAKAI: I can appreciate the initial draft is a 800-page work plan not being perfect. But, Mr. Linder, you said that the plan lacks detail, transparency, and collaboration. I can forgive the detail part, but the lack of transparency and collaboration is what, to me, is a little bit troubling. Can you give me some examples of how the Navy has not been transparent and has not been collaborative?

MR. LINDER: Well, a lot of the decisions that need to be made as part of this work were not adequately

described, so what this decision-making process that is part of this work plan. I'll give you an example, going in to, you know, allow -- one thing that they are required to do as part of this is a -- refined groundwater models to understand the groundwater flow around the facility. So, basically, there needs to be decisions on how we use past data and new data to change that model. That process of making those decisions and making professional judgment on gleaning of information needs to be clearly defined. And we're looking for that to be done in a transparent fashion, where we, as the regulatory agencies, get to participate in those decisions and influence those decisions, and where we feel necessary, bringing in other parties with expertise, such as Board of Water Supply, USGS, and DLNR, to essentially weigh in in those decisions before they become final.

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So that's where we want transparency, is really of that technical process, making sure that there is adequate transparency and collaboration. They kind of come hand in hand in this type of work.

CAPTAIN HAYES: And if I may, as I took the comments over the last couple of days, it was an iterative process, that we did not spell out in the work plan as to how we would accommodate or where there would be the injects for that iterative process to allow that

1 transparency in the input that would come in, as opposed 2 to working in a vacuum. We didn't adequately describe 3 within our work plan how we would incorporate future 4 comments to that. Is that correct? MR. LINDER: 5 (Nods head). 6 MR. KAWAOKA: Thank you, Senator. 7 Before we proceed, Reporter, are you getting the 8 names with the comments and questions? Are you okay? 9 THE REPORTER: Yes. 10 MR. KAWAOKA: Good. I just want to make sure. 11 Before we go on, a representative from the Army 12 is here. I just want to --13 Can you introduce yourself and also mention, do 14 you have any updates from the Army's side? 15 MS. PFENNING: Yeah, My name is Sally Pfenning. 16 I apologize for being late. There was an accident on H-117 between here and Schofield, so that held me back a little 18 bit. We were invited because Act 244 came out and listed 19 Schofield Barracks Military Reservation as relevant to 20 this conversation, so I'm here. Did some research before 21 arriving here, and understand that there had been some 22 misunderstanding as to whether the Army had field 23 constructed tanks or not, and that that has since been 2.4 resolved, and that we do not own and are not responsible 25 for any field constructed tanks. But I'm here to listen

and add or answer any questions that you may have.

MR. KAWAOKA: Okay. Thank you. Thank you for coming.

As far as the updates, I think it will be good for the task force to kind of understand, from an overall standpoint, some of the federal regulations regarding underground storage tanks that are ongoing now.

So, Steve Linder, can you give a quick update on where that is?

MR. LINDER: Yeah. So Hawaii is one of -- I believe it's 38 states that have what's called State Program Approval of their Underground Storage Tank Program. So in a state like Hawaii, the state regs are, in essence, the federal regs. Federal regs -- the state regs essentially supercede the federal regs as long -- they approve it as long as it's as stringent and as broad in scope as the federal program.

So back in -- was it 2015? -- we promulgated changes to our federal regulations. And now Hawaii is in the process of updating their regulations to match these new federal regulations. Our understanding is Hawaii's intent is to keep what's called State Program Approval. So they have three years to revise their regulations and apply for this update to their State Program Approval.

As part of that change in the federal

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regulations, we dropped the -- what's called the deferral for field constructed tanks and airport hydrant systems. When the original federal regulations were promulgated over 20 years ago, a decision was made, because of the complexity of hydrant systems and field constructed tanks, that we would defer that to a later time.

Well, we hadn't reopened the regs for over 20 years. We reopened the regs, and the management, through Washington, D.C., decided, you know, it's time to drop that deferral. So we dropped that deferral, so airport hydrant systems and field constructed tanks are now regulated under what's called RCRA Subtitle I, and that's for the systems that contain greater than 10 percent of the fuel volume underground.

So in a lot of airport hydrant systems, all the fuels were aboveground, that they are not within the realm of Subtitle I. But there are systems out there where the fuel, greater than 10 percent, is underground. So it's not just field constructed tanks that are underground, but if there are facilities where there's long lines of piping connected to tanks and the piping is underground and there's a large volume of fuel underground, then that's where they come under the federal regulations.

So we're currently working with Hawaii to make those changes. And states have the opportunity to, when

they change their regulations, they can be more specific than the federal regulations; they can be broader in scope; they can be more strict. And that's something that the State of Hawaii decides in terms of how they want to proceed to their changes.

Other changes that we added, we added the federal regs secondary containment for new and replaced tanks and piping. We added operator training requirements. We added provisions related to periodic operation of maintenance of systems. And we added information, with requirements related to compatibility for storing biofuels, and added requirements related to routine kind of operator walk-through inspections. So I'd say the -- probably one of the more complex components we did add is the field constructed tanks, and we've actually been kind of researching ourselves, in Region IX, kind of the implementation of how this is going to be done. And it is quite complex, because these systems, like a system like Red Hill, quite a bit different from the corner gas station.

So we brought a team of experts who are used to inspecting refineries and fuel terminals out back in Maine to take a look at the facility, go through, and to help us try to understand how in the future we'll inspect a facility like Red Hill. And we're still working on that,

on a core plan for that. And we've been in close communication with our Headquarters Office about what we're learning at Red Hill. Because Red Hill is not just getting Region IX attention, but it also has my management in Washington, D.C.'s attention, because it is a very complex facility, and we're learning a lot in terms of how that kind of implements our program for other field constructed tanks throughout the country.

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MR. KAWAOKA: Before we have questions from the task room, I'm just going to ask Steve Chang, management, Solid and Hazardous Waste Branch, if you want to add to anything that Steve said.

MR. CHANG: Yeah. We're working with EPA. We have a tight timeline, two years, in which to get new rules promulgated. So we're looking at issues on our current rules, how we can improve that, and also making sure that we can comply with the new federal requirements that were promulgated in October last year. Many of the changes that the EPA implemented were already taken care of by the State under the Energy Policy Act, so we're maybe halfway there. But, again, looking at field constructed tanks will be one of the issues we have ahead in front of us.

MR. KAWAOKA: Any questions from the task force members?

1 MR. LAU: In this rule-making process, are you 2 going to be taking or entertaining suggestions or recommendations from stakeholders or the public? 3 4 MR. CHANG: Yeah, we'll probably -- we may do an 5 initial draft and then, basically, doing a road show to 6 every island to talk to stakeholders and operators, to present them with our proposals and go through that 8 dialogue. And there is an actual public presentation 9 process that we'll go through. 10 MR. LAU: Do you mean to change any -- depending 11 on what you do in the rules, which actually -- better than 12 the Hawaii Revised Statutes, do you need any HRS 13 changes --14 MR. CHANG: We will work with the Attorney 15 General to make sure that those issues are covered. 16 MR. LAU: And what is your timeline for this 17 whole process? 18 MR. CHANG: Well, we have up to three years in 19 which to complete it, and we're already starting the 20 process. So it is -- just the rule-making process itself, 21 once we have drafted the rules, we present it to the 22 Governor; he must give an approval for a public hearing. 23 If -- that process can take up -- just up to a year to 24 just get through that process. 25 It seems that your three-year clock MR. LAU:

block started -- was it June 2015 or July 2015? Was that 1 2 the -- maybe it's for the other Steve. 3 MR. LINDER: Basically, yeah. I believe the 4 effective date, which is October 25, and yeah, there's a 5 three-year clock. 6 MR. LAU: Thank you. MR. KAWAOKA: Any other questions? 8 MR. POENTIS: Chair, one thing. Mr. Lau, I just 9 wanted to let you know, I think -- you know, you asked a 10 lot of questions about the historical tanks that are part 11 of the cleanup program. I just noted in my notes that all 12 of these reports, as a courtesy, copied, as the Board of 13 Water Supply is a big stakeholder, we provide that to you. 14 So if you don't have them already, then we certainly can 15 get you a copy. 16 MR. LAU: Thank you, Aaron. I know I've seen 17 periodically, I guess, not only tank, but it's the support 18 infrastructure, like, pipelines. It looks like fuel might 19 have started down in Pearl Harbor and pumped up to 20 Wahiawa. MR. POENTIS: So, all of that investigative 21 22 information, as part of our normal routine process to the 23 cleanup program, we include you in on that -- the format 24 responses. 25 MR. LAU: Thank you, Aaron. The only one that

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    I've seen on a regular basis seems to be about the fuel
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    leak in the Mililani/Waipio area.
                                        But I haven't seen
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    anything regarding the rest of the activities that you --
    for the rest of the infrastructure there.
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              MR. POENTIS: Most of that work has been done in
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    the past. This is a long-term maintenance.
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              MR. LAU:
                        That is also -- the repository is also
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    with the Department of Health?
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              MR. POENTIS: Yes.
              MR. LAU: Is it the Solid and Hazardous Waste
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    Branch or the Hazard --
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              MR. POENTIS: With the HEER Office.
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              MR. LAU: With the HEER Office?
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              MR. POENTIS: Yes.
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              MR. LAU: Okay. Well, I know where to go now.
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              MR. POENTIS: They know where to go.
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              MR. KAWAOKA: Any other questions from the task
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    force members?
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              MR. YOMES: I have some questions.
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              MR. KAWAOKA: Yes, sir.
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               MR. YOMES: This is for the Department of Health
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    and federal EPA.
                       Community-wise, I think we look at three
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    categories: One, assuring public safety overall;
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    sufficient oversight of these tanks; and enforcement of
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    corrective measures. With that said, somebody from the
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Department of Health, if you guys want to answer this.

First of all, assuring public safety, that's assuring the drinking water is good, is not affected by these tanks, and also anything around these tanks are safe and not affecting the community. As far as assuring public safety, do you feel that the State is doing that, sir, at this point?

MR. KAWAOKA: I'll let -- we have two branches

here that are involved. We have Steve Chang with the Solid and Hazard Waste Branch. We have Joanna Seto, who's with our Safe Drinking Water Branch; as well as Stuart Yamada, who oversees both of those branches.

Steve, you want to --

MR. CHANG: So I guess the question is in terms of the safety of the drinking water. And we work with our Drinking Water Branch and the Board of Water Supply to continue monitoring the drinking water sources to make sure that the water is safe to drink. At this point in time, we have a very good record in terms of that.

Right, Ernie? The water is safe?

MR. LAU: I can only speak for the Board of Water Supply wells. There are no detections of fuel contaminants at this time. We continue to monitor on a quarterly basis.

And Erwin Kawata, how many fuel contaminants do

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we monitor with at our wells? 1 2 MR. KAWATA: Well, we have a total list of 240 3 different contaminants, not all of them are fuel-related. 4 But there is -- the primary fuel-related type of 5 contaminants is on our regular monitoring list. 6 MR. LAU: And these are the five closest 7 wells --8 MR. KAWATA: Correct. 9 MR. LAU: -- surrounding the Red Hill 10 facilities. We'll be looking at these other locations to 11 see if we need to add any monitoring requirements at wells 12 closer to these other -- sounds like closed facilities and 13 pipelines. 14 MR. HAYES: And I can speak for the Navy, 15 Red Hill well, that we do test that water as well, and all 16 the tests have come back that the drinking water is safe and remains safe. And we're committed to making sure that 17 18 that water stays that way. 19 MR. YOMES: And, sir, I guess my second point, 20 sufficient oversight, continuous testing, is this done on 21 a quarterly basis at least as far as testing? 22 MR. CHANG: Yes. We have continuing monitoring. 23 We're also -- beyond the drinking water sources, we are --24 the initial Order on Consent focuses on the Red Hill 25 Facility developing a network of groundwater monitoring

wells to look at what is happening in the area in the vicinity of Red Hill and looking at how the water is related and how it's moving. One critical thing is determining the movement of water and how it may -- is it moving directly south or is it moving to the northwest? Looking at those factors, plus to be able to -- it's a continuing project, several monitoring activities. And we'll be applying models to determine -- one of the things we're looking at, catastrophic events from the risk assessment process, is looking at, if a major fail were to occur, what would happen to the groundwater if fuel gets into it, and how will it move, and can we stop it to the drop, a strategy on how to better do it. But I think the more important thing is we try to focus on how we can improve the operation of the tanks to ensure that we don't have these kind of gatastrophic events.

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MR. YOMES: Sir, the third factor that I think your committee looks at is enforcement. You see something that needs to -- corrective change needs to be made. Is there -- I think Mr. Lau brought up a little bit about laws or rules that can be implemented to enforce that particular violation, or something that needs to be changed. Is that in place?

MR. CHANG: Yes. And we're in continuous dialogue with the legislature because they're the ones

that propose laws, and we will comment on that and take into consideration those that we consider to be valuable improvements. And the regulatory or the legal oversight over all of our facilities we operate, we are contemplating our own rules how to improve our oversight on not only Red Hill, but also all our other some thousand operating underground fuel storage tank facilities.

MR. YOMES: Mr. Linder, as to those three points, do you feel comfortable that sufficient things are being done to protect the environment and the community at this point?

MR. LINDER: Well, one, basically, you look at the data carefully for the wells, drinking water is safe. Two, are — the reason why we're involved, because we're taking Red Hill very seriously. It's a large facility, a lot of fuel. That's why we, basically, partnered with DOH to negotiate and put in place the Administrative Board on Consent, the AOC, to make sure that the Navy does the work necessary to assure us all that it's safe now and into the future in terms of operations and the right changes are made to the facility to make sure that there is no unacceptable risks posed by the facility to drinking waters in Hawaii.

The AOC has penalties if the Navy doesn't do what they're supposed to do. So far, they have been in

compliance with the requirements of the AOC. So the things like, you know, the regular process of submitting information, things of -- some things have been asked to get changed, like the rejection of this plan. But that's the normal part of the process. So they, up until this point, have been in compliance. They continue to work to satisfy the requirements of the AOC. And we're looking to getting the information we need to continue to basically be able to assure us into the future that the facility is safe.

MR. YOMES: Okay. This question, I guess, is for Mr. Lau. Are you doing an independent investigation as far as this fuel tank situation?

MR. LAU: Yes, we are. We are doing our due diligence into -- address the concerns of our rate payers. So we're doing our independent research, too, and drilling our own sentinel monitoring wells to create an early warning system. I notice, in the rejection letter, the EPA, they mentioned about creation of sentinel well -- monitoring well network, and we were very happy to see that in there. Because what we need is an early warning system. It's really difficult to determine what is the exact conditions underground. And if there was a large fuel leak out of Red Hill, where would it end up? And the term of it could be a long term. It could be years, where

it might show up someplace that we don't want it to be.

So given those unknowns, I think the precautionary basis is to look at a sentinel monitoring well network to give an early warning system.

So, yes, we are doing our own independent due diligence. And we are participating, as a subject matter expert, as allowed by the EPA and the Department of Health, in the AOC process. And we have invested a lot of comments and suggestions to the group.

MR. YOMES: My follow-up question to that is:
Your agency is a City agency, spending millions of dollars
of taxpayers' money for this particular project. Is that
because you feel that the federal and state agencies are
not doing enough and you don't feel comfortable with what
they're doing, and that's why you're spending the millions
of dollars of taxpayers' money to do your independent
investigation?

MR. LAU: First of all, I want to point out that we don't receive any property tax or any tax revenue to operate the Board of Water Supply. We use water rate payer monies, basically, people paying water bills. And we believe, because our mission is to provide safe, dependable and affordable water now and into the future for our community, the preservation of our drinking water resources is vitally important to our rate payers, to

our -- for our grandchildren and their grandchildren. So we feel very well justified in expending rate payer funds to take a very critical look at the situation of Red Hill.

Remember, at Red Hill, the volume of fuel stored in the facility that was constructed between 1940 and '43 is over 187 million gallons right now, and it's smack dab right over the drinking water aquifer there at Moanalua, the same aquifer that we also pump from and also the Navy receives their drinking water. So we feel it is part of our mission and part of our stewardship responsibility to look at protection and preservation of these pure drinking water resources for our community. It is part of our mission.

MR. YOMES: Chair, one last question. This is for the Navy. I wish this would have been a situation of national security because I feel that the location of these tanks was compromised, it was online, and everybody else and any other foreign entity can see where these tanks are located. How can you respond to, if there was a situation where, unfortunately -- I hope we never see this -- that we got infiltrated by a foreign entity, and somebody drops bombs in that area? Is the community -- I know the community not going to be safe anyway. But I want to know if -- somebody told me from the Navy that you can't -- the tanks are too far down underground for that

to actually go through and create a problem. That's why I say, from the get go, I wish this should have been worked out between all entities before this location of these tanks came up publicly and it's all on public view. Can you respond to that, please?

CAPTAIN EPPS: I'll take a first jab. So you're right, part of it is why, for the 70-plus years, Red Hill has been where it has been for so long. It was initially classified, then declassified. But because of the strategic importance, we just kept very quiet about it. But you're right. Part of the reason why it is built and developed in 1940 underground was just that, to minimize the impact if someone wanted to attack the fuel supplies we had here on Oahu. Prior to that, they were all aboveground tanks, and history will elaborate on why that could have been detrimental to us during the war effort.

So, Red Hill was created, and for the 70 years of existence, part of the key strategic reasons it's there and it's helpful is because it is buried in the mountain, we've got significant mountain above the tanks, which can protect it from any kind of what we call kinetic or anyone trying to harm it with a bomb or, you know, you name it.

And so that purpose still remains today.

Obviously, people have asked before, if some kind of a nuclear device or what kind of weapon could go

there, you know, how that would impact Red Hill. And probably the scenario would play out is such that, if any kind of bombs are dropped on Red Hill, then that's going to be so significant, from just a greater perspective, it really is less about Red Hill and more about what happens in the arena. So we don't focus as much about that. We focus more specifically on the ability to protect those fuel sources there from anyone attacking, whether from a physical means and another event we have is from a cyber means. I think most of you know now, less prevalent today that someone is going to drop a bomb on us, and much more likely someone is going to try to take their iPad mini and infiltrate it that way. And we have some means of protection that are unique to Red Hill today that would be difficult if we had to kind of build a new facility.

MR. YOMES: Okay. That will comfort the community concerns that some people brought up to me. So I'll pass that along. Thank you.

CAPTAIN HAYES: If I could add on there. We still consider it and it is still a national strategic asset. And as the Navy shifts our efforts to the Pacific, you know, our presence helps keep the ceilings open here in the Pacific and ensuring that free flow of commerce in the area, which is a great benefit to Hawaii, where greater than 90 percent of your commerce comes via the sea

lanes. So we still do view it as a national strategic asset that has a very important purpose.

MR. YOMES: Chair, I know I said it was one last question. But what would happen if these tanks were closed? What would be the repercussions of the Navy and national security for Hawaii?

CAPTAIN EPPS: I'll take this one, sir. And I'm going to put on my former hat. I came from the Pentagon before I came to my assignment here, so I was in the Joint Chiefs of Staff, and we worked specifically on that. A lot of this is classified, so I'm going to speak in layperson's terms.

But, you know, if you look at a map and you look at -- listen to what Captain Hayes just said, a lot of our emphasis -- Hawaii has always been important, the Pacific has always been important. That is only becoming increasingly important now. So the primary reason for Red Hill's location isn't just because of convenience. We predicate all of our mobilization abilities based on being able to store a certain amount of fuel here. And this is any kind of mobilization, whether it's a military effort, whether it's a humanitarian assistance or disaster response, as we're seeing actually this week, folks mobilizing now to go down to Haiti in lieu of the hurricane down there. So there is a very advanced

calculation that goes into if at any one time the military 1 here has to address a national -- a natural disaster, or 2 if we had to address any kind of other mobilization, that 3 4 we can calculate how much fuel we need to resource those 5 movements. And those were all predicated on capacity, 6 which Red Hill addresses, and then I think, more 7 importantly, the location. Because, again, Hawaii's 8 unique location in the mid-Pacific, just in terms of solving the tyranny of distance, it would be very, very 9 difficult to find an alternate location that could match 10 11 that. 12 Now, part of our study, we'll look at alternate locations, so we are going to look into that. I've been 13 part of those studies before, so I've definitely seen this 14 15 play before. But it's just a really tricky calculation to do, and it has to do more with location and, again, the 16 key location that we have here than anything else. 17 MR. YOMES: Thank you, sir. 18 19 Thank you, Chair. MR. KAWAOKA: Thank you, Mr. Yomes. 20 questions and comments. 21 22 Thanks for the update, Steve. 23 Thanks, Steve. 2.4 As I mentioned before, all the comments, 25 transcripts, and the presentation will be included as part of the report to the Legislature prior to the session starting in January.

I guess, before we conclude, I just want to pose a question to the task force members about: Do you feel that this meeting per se is worthwhile? You know, we're scheduled to do like an annual meeting. The alternative is we just provide a report, just like the Navy has provided a report. And of course, the task force members, however, will provide any comments or questions, etc.

So I just want to toss it out to the group members, if you feel that this meeting is necessary or worthwhile to do. Just keep in mind, also, that just remind everybody, the task force members who don't know already, there will be an informational public meeting this evening on Red Hill specifically at 6:00 p.m. at the Moanalua Middle. So that has been ongoing.

And again, like Senator Wakai has mentioned, we want to be transparent, we want to make sure that we're collaborative, working together, because this is a very complex problem we're working with. And we welcome the input from the subject matter experts, like the Board of Water Supply, DLNR, and USGS.

So I just want to pose it to the task members: Do you feel that this meeting is worthwhile?

Cynthia?

MS. REZENTES: For me, I guess I would be interested in a little more technical detail as far as what's going on with each of the tanks. I know that Aaron and his team do remedial work on all of the bases. But things like, you know, you talked about the tanks in Waikakalaua Peninsula. What exactly is going on with them? You know, a little more detail as far as: What are the schedules? What are the remediations that might be going on with some of the ones — the ones that you're talking about that are going to be removed, what is the basic overall plan for that? What is the schedule for the removal? What are the investigations showing regarding the contamination in the soils? What are your plans for taking care of that?

I think that's part of what I think the Legislature meant in having this task force together, not just something that's at a 40,000-foot level, but something that we could make sure that the public in general has the confidence that what is occurring is being done with the foresight and the forethought to make sure that what is there is being taken care of, to remove any type of dangers that, like Mr. Yomes is talking about, that the community would be concerned about. How does that impact the safety of our water, the safety of the community?

I appreciate this is an initial overview, but I think a little more detail on what's going on, especially if you're talking about removal of facilities, how is that -- what are you doing to remove -- to make sure that whatever you remove is going to leave something safe in place that we don't have to worry about and readdress 20 years from now because we didn't take care of something? I think -- I don't know.

I can't speak for the Legislature. I'm just looking in between the lines. And I think that some of what I think what was intended, that not only do we get this high-level overview, but that confidence is instilled that we are taking care of things in the most appropriate manner possible to make sure that, whatever we leave back, we don't ever have to worry about again.

MR. POENTIS: So I think what you're asking for is similar to what -- you're very familiar with regards to the cleanup program and what we're doing as part of the Restoration Advisory Board, where we have this prescribed process of getting community involvement on the cleanup program, the investigation, the proposed plan, and the ultimate record of decision, or whatever it may be. And, certainly, I think, for tonight, as part of the Red Hill public meeting, there'll be lots of discussion on where we are with regards to the activities in place and what's

being done, both on the environmental world, the monitoring information, as well as, you know, the tank investigative efforts.

With regards to the other fuel -- field constructed tanks that are closed, you know, they follow the normal process that you're familiar with, with regards to the Restoration Advisory Board meetings, as well as the disclosure, like how we do in the cleanup activities and where we are. It's just that, for those facilities, most of the actions have already been taken place, and we're kind of informed in the long-term monitoring efforts.

Some of the other ones, like the diesel fuel purification facilities, we've just initiated the demolition effort. And as we go through the process, although they're not part of the cleanup program, you know, we can certainly be part of this discussion in the future, or certainly we can make forums specific, as in the past we've done for you with Radford and other places.

MS. REZENTES: I guess, you know, at this level, I'm not necessarily asking for quite that level of detail, but something more than "We're taking care of that."

MR. POENTIS: Sure.

CAPTAIN HAYES: I think that's a fair statement with us being kind of unsure where the direction of this was going today and at what level of detail. So I think

we can take that as a comment with the resolution, as we continue, certainly be open to that aspect.

MR. KAWAOKA: Mr. Yomes.

MR. YOMES: Chair, I agree with Cynthia, but this is our first meeting. And with the overview of what's going on and stuff, I think we have further meetings in the future, we get to specifics, and that can be agenda items put on by you that will cover what Cynthia's concerns was. But I feel these meetings is essential for the community. That's my feeling so.

MR. KAWAOKA: Any other comments? Mr. Lau.

MR. LAU: Thank you. I, actually, totally agree with Cynthia's comment about the need for more substance, not the -- not the total dive into the weeds, but at least more substance. Because these meetings are transparent, they're in public, they're open to the public, there's a record and a report, so that's good for the community to understand what are the challenges we face.

And I agree with Mr. Yomes. We should continue these meetings.

And I would like to thank Senator Wakai and Representative Lee, who isn't here, for the State Legislature in deciding to take a temporary task force, Red Hill fuel tank task force, and now making it permanent.

My recommendation will be that the meetings maybe be done on a quarterly basis as opposed to once a year and then a report to the Legislature, so that the community and the major stakeholders can get more information and get a better understanding of the situation.

Even for, as was pointed out earlier, there are a total of 54 tanks, 31 in use, 23 out of use, well, we'd like to know more about what's happening with them, including the ones out of use being decommissioned and remediated for any contamination. Thank you.

MR. KAWAOKA: Thank you, Mr. Lau.

MR. CASEY: Patrick Casey with the Commission.

I agree with Ernie. We should meet quarterly. That's a good schedule. And as a subject matter expert and also part of the regulatory part of it, I'd like to make a request that we get more technical data, especially with the two -- in the news, those two monitoring wells put in, and we haven't seen any data at the Commission. And I would like to make a request that we get that a little bit more promptly so that we can see what has been put in the ground and make any comments if we feel necessary. But I'd like to see more technical data a little earlier. Thank you.

CAPTAIN HAYES: So those two monitoring wells

have just recently been installed. We're still working on 1 2 the final report, and we'll get a copy out. We have not 3 yet taken any data or samples from those wells. I believe 4 that's going to start this month. So this October will be 5 the first sampling we'll do from the new wells that have 6 been installed. MR. CASEY: So if I understand correctly, 8 and 7 9 have been installed, but sampling -- the water sampling 8 9 hasn't taken place; is that correct? 10 CAPTAIN HAYES: Correct. 11 MR. POENTIS: It's on schedule to be sampled, I 12 believe, the week of October 17. 13 MR. CASEY: Thank you. MR. KAWAOKA: Senator Wakai. 14 15 SENATOR WAKAI: Sir, can I ask a question before we close? Mr. Linder? 16 17 MR. LINDER: Yes. 18 SENATOR WAKAI: I'm looking at your comment 19 number 53, and it says the Navy characterized it by 20 saying, "There's been no dissolved petroleum constituent 21 concentrations detected at concentrations approaching the 22 soluble level of JP5." I'm not too -- I'm not sure 23 exactly what that means. But I do see that you found that 24 there have been concentrations of petroleum products greater than 5 milligrams per liter. Can you tell us, if 25

a human were to consume this on a regular basis at this level, how harmful or unharmful is 5 milligrams per liter of petroleum products in your water?

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MR. LINDER: That's a complex question, because a very large number of chemicals make up a petroleum mixture, so it really depends on what is in that mixture. So, for example, gasoline is orders of magnitude more toxic than diesel because of the high concentration of aromatics in gasoline. So it really is going to be dependent on the actual mixture. That 5 parts per million that you reference there is a -- I call it -- an indicator total for hydrocarbon, so it doesn't explain what is in that particular mixture of fuel. So you cannot really take that number and be able to basically say what is the exact toxicity of it. And some of the petroleum products that are in fuel are also in things like, for example, food products, and they don't have any indication of toxicity. But others are very toxic, so you look at that, and you got to weigh about what is in the mixture. that answer your question?

SENATOR WAKAI: Not really. Would you, if you had a child, would you allow them to drink this level of petroleum products in the water and be perfectly fine with that and confident that they are going to not have any harmful effects?

MR. LINDER: Well, I think that a -- one thing we got to be clear, is these monitoring wells underneath the tanks, the design of them is to monitor the contamination under the tanks. We know there's contamination there. They are not drinking water wells. Monitoring wells are designed to monitor pollution, so, typically, you want to put them where you think you have pollution and be able to monitor that pollution. Drinking water wells are constructed very differently, and they are -- you hope you don't have pollution in drinking water wells.

So, no, I would not recommend anybody to drink monitoring well water from under a petroleum facility.

That's the design of the well and the purpose of that well.

SENATOR WAKAI: So although the contamination hasn't been found in the drinking well, it's there sitting under Red Hill, as indicated by the monitoring wells. Up until now, people of Honolulu have been lucky that this hasn't migrated into our drinking water; is that correct?

MR. LINDER: I wouldn't use necessarily the term "lucky." I mean, contamination from various different industrial activities occurs throughout -- throughout the country, throughout the world. And very common to see contamination in shallow groundwater beneath industrial

facilities. One of the advantages we have with petroleum products is that most of the petroleum products, it's not tremendously soluble in water, and it, also, generally, in most circumstances, will naturally degrade at a certain date. So we have a lot of problems in the corner gas stations actually, typically because their gasoline is more mobile, more toxic than diesel or jet fuel. Those have been a big -- big focus of my program, the Underground Storage Tank Program. And even though we have hundreds of thousands of those across the country, the number of drinking water wells affected by them is still relatively small, given the large volume and these types of problems that we've had in the country.

So I think the good thing is there's a separation of where the drinking water wells are from where the facility is. And that's why we're concerned about it, because the facility is over a drinking water aquifer. But we want to understand what's happening with the petroleum, make sure that we have sufficient confidence that a leak from Red Hill would not affect drinking water quality.

CAPTAIN EPPS: Sir, if I can have a 30-second commentary on that. So on the monitoring wells that we do, we do a monthly check; and as Steve said, that is primarily our first early warning. So it is right

adjacent to the Red Hill facility. And what we're checking for is really more the physical presence of any kind of petroleum or oily change. I'd liken it to taking a turkey baster, sucking off the top to see if anything is happening there. That, we do frequently, every single month, and that would be the first sign if you have any significant problems that could migrate somewhere near a drinking water facility. That would be our first early indication.

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On a quarterly basis, we do the more exhaustive independent lab certification, which can tell you on a parts per billion basis what kind of constituents are in there. I think the comment that you read said that the JP5, which is the Navy jet fuel, you could not discern if that was in and that there were elements of the petroleum constituents in the water, but that the actual presence of it, I think is what I heard you say, was not present in that particular sample.

CAPTAIN HAYES: And if I could just add on. So the monitoring well and the drinking water shaft, we have never had a sample come above the environmental action levels at the drinking water shaft. So I have kids here. My kids drink the water from Red Hill. I drink the water from Red Hill. All the people that work with me at NAVFAC Hawaii that are all local Hawaiians, including my

environmental staff that takes the samples, we drink the 1 2 water from Red Hill. The water is absolutely safe to 3 drink. Sir, for a little more context, 4 CAPTAIN EPPS: 5 so there's three nearby water shafts near Red Hill. Two 6 of them are BWS, and one of them is the Navy primary well 7 that Captain Hayes talked about. The two BWS wells are about a mile and some change away from Red Hill. One is 8 to the north and one is to the south. The one that 9 10 Captain Hayes talks about, which sources most of our 11 drinking water at Pearl Harbor-Hickam, is 3,000 feet from 12 Red Hill. So that if there's anyone who's going to be 13 prone to any kind of issues with contamination, our drinking water there at Pearl Harbor-Hickam would be the 14 1.5 first one to probably be impacted by any contamination. 16 SENATOR WAKAI: Thank you. 17 MR. KAWAOKA: Any follow-up question? Any other 18 questions, comments? 19 I have a question. The original MR. JOSLIN: 20 AOC called for certain product to be used in Section 6 21 and 7. But what timeline? When is that to be --22 MR. LINDER: Well, I'm trying to -- after the 23 approval of work, the scope of work, it's -- correct me, 24 guys -- 24 months, was it? 25 MR. PALLERINO: I'm looking it up. It was after

we approve the scope of work, there's 24 months for them 1 2 to submit the groundwater model. 3 MR. KAWAOKA: Please state your name. 4 MR. PALLERINO: I'm sorry. Bob Pallerino, EPA. 5 MR. LINDER: 24 months. So after we approve 6 this plan, they submit a plan, we reject, and so it would 7 go back, modify it. And after that, they have 24 months 8 to basically complete the work under that Section 6 and 7. 9 MR. JOSLIN: How long did the AOC afford the Navy to produce the plan, to recommend a plan? 10 11 MR. LINDER: Okay. So the plan was --12 CAPTAIN HAYES: I believe it was 90 days. 13 MR. LINDER: -- 90 days after we ended the 14 scoping discussions. And we ended those scoping 15 discussions --16 CAPTAIN HAYES: I think we submitted in May. 17 MR. LINDER: May is right. 18 MR. JOSLIN: So the AOC was signed, and the Navy 19 had 90 days to produce a plan. So when was the plan 20 produced? 21 MR. PALLERINO: So after our -- the AOC was 22 signed, we had -- Navy had 90 days to submit a scope -- or 23 we had 90 days to have our scoping meeting and scoping. 24 After that -- that happened in February of this year. And 25 then it was, I believe, 60 days -- or, no -- 90 days after

that, they had to submit their scope of work, which was in 1 2 May. So the Navy did that and submitted that plan to us, 3 that scope of work to us, in May of 2016. And then we 4 took a few months to review it with DOH. And then we 5 submitted our review and disapproval letter in September 6 of this year. MR. JOSLIN: With the -- I understand there's an 8 October deadline to resubmit, correct? 9 MR PALLERINO: Under the AOC, the legal language 10 was that they had 30 days to resubmit to us. But, again, 11 for practical reasons, we may have to give the Navy a short extension of maybe a few weeks to complete that 12 13 resubmittal. The AOC does allow the parties to 14 renegotiate the deadlines if all the parties agree that 15 it's the appropriate thing to do. 16 MR. JOSLIN: The current deadline you gave the 17 Navy is October --18 MR. PALLERINO: October 15th would be the 19 first -- would be the deadline as established by the AOC. 20 That could change --21 MR. JOSLIN: Captain Hayes, is your group going 22 to make that deadline? 23 CAPTAIN HAYES: We plan to -- based upon the 24 discussions we've had this past week, very in-depth with

Section 6 and 7, we planned to ask for an extension, as

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you allude to, a few weeks. We don't have that exact date yet. But a lot of this stuff that was asked for, which we want to develop the best, dependable groundwater monitoring plan, is very in-depth. And so we want to make sure that our resubmittal -- I'm not looking forward to have it rejected again. So we're looking for -- to put the best product forward, and we anticipate that will take more time.

Additionally, the timing of getting that letter back, in concert with this meeting and the public meeting, we'd ask for some time to make sure we focus in on that appropriately.

MR. LINDER: And one thing I want to clarify is, so the four monitoring wells that are being installed, that's actually part of the 6 and 7 work. So there was a —— we pulled that out and approved that early to get those monitoring wells in motion and start getting additional data. So even though this period of time is 24 months to complete the work once the plan is approved, there's going to be interim work product that's going to help us make decisions related to risk and, potentially, decisions related to upgrades before this 24 months is up. So the 24 months is really to complete all of the activities, but a lot of the interim products that are going to be developed are going to be very critical in terms of

forming risk-based decisions.

MR. JOSLIN: The concern is that it's two and a half-ish years where you don't have a plan. Are you planning to ask for more resources or technical expertise to help you get this plan together, given this rejection and the fact that you're not going to meet the next deadline set by the EPA?

CAPTAIN HAYES: I don't know that we're not going to meet the next deadline. As the AOC allows, we can ask for additional time. That can be negotiated amongst the parties. We do -- it's not an in-house product. We do have a contractor that we've hired to produce that plan. But this Section 6 and 7 is not the entirety of what the AOC requires us to do. So this process, the development of the groundwater plan, will feed into our risk analysis, which will feed into the tank upgrade alternative. So that as resources are required, we will seek help and the means to do that.

MR. JOSLIN: So when you are reaching to hire the resources, you are being given them?

CAPTAIN EPPS: What we did for -- you know, we had to hire additional people to run this specific AOC SOW, as he mentioned, so we do have that. We do have the flexibility to go hire. Obviously, the bigs are -- I think they were waiting for is that, once this goes

through, and we have the scope, and we have the technology lined up, and we have the kind of way ahead lined up, there's going to be a billing. So big Navy knows that and it's committed to doing what we have to do to support it to the best of our ability. But we're not at that point yet. So I would say that we have the support of our leadership and the big Navy to get this done right.

So far, we think that -- again, this is our first time at bat. We missed. We think we'll do much better the second time. But if we need to pull in some more reinforcements, we have the support above us, and we certainly have the ability to ask for it.

MR. JOSLIN: Would you agree that, if you pull in more resources now, you would probably make the October 15th deadline? Seems like another delay.

MR. POENTIS: I'm not certain that that's a fair characterization. We were under a very tight timeline, you know, as required, following the negotiated scoping meetings that all of the parties agreed to. We have a very tight timeline to deliver the proposed work plan. We took the information that was developed as part of the agreed-upon scoping discussions. We developed the work plan, which we thought met the requirements. We gave a lot of background based -- to provide context to what were our presumptions. We got that submitted, and it was

rejected.

Granted, the AOC specifically states that the resubmittal is within 30 days. But given the complexity of what's being asked, we're going to ask for an extension. I'm not certain that putting more people on it would facilitate a faster product.

CAPTAIN HAYES: After the discussions we've had, we want to have the right product. I don't want to necessarily focus on a deadline that was initiated when the AOC was negotiated that -- I mean, a lot of these changes were good comments and good changes we want to incorporate. The process that we had when we did scoping, basically, the development of the outline back in February didn't incorporate a lot of the changes that we're addressing now. So the Board of Water Supply and the EPA and DOH all came in with very valid comments that we want to address.

We will try -- we're going to try our best to get it done as quickly as possible. But I don't want to necessarily have an October 15th date per se that I rush to turn in, to only find out that, "Hey, you weren't able to adequately address all the comments we had in there."

So we are looking at it. We've looked at each and every comments on the 51 papers that came out. Some of them are very -- very easy to address. Some of them were much more

complex that we're going to have to -- we're going to ask for the appropriate amount of time, while still doing it as expeditiously as possible.

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CAPTAIN EPPS: And just take the one nuance Aaron picked up on that. So I would say that here. analogous to if you wanted to build a highway faster, hiring more guys to lay asphalt, that would achieve your goal of getting it down more. This isn't, I think, necessarily an issue of you having three extra geohydrologists looking at the same problem accelerating There's a nuance here to this, that we have, we think, the right subject matter expertise. This is just a big problem. Again, our first time at bat, we missed. We think we've got the right resources now. And our boss Admiral Fuller is saying we're committed to meeting every single deadline and actually accelerating this when given permission by the regulators. It's unlike -- you can't swarm this with a bunch of added folks and that's going to somehow close the gap guicker. There's a subtlety between that and what I would say analogous to hiring more folks to lay a highway, which would result in a quicker highway being built.

MR. LINDER: One thing I also wanted to point out is kind of the overall structure of the AOC. So there are these, I call them, these various different tasks,

these studies and reports of information that need to be gathered. And all of this information and the work that the Navy is doing is to help gather the best information we can to make decisions on how to move forward with upgrades and operations of the tanks, to make sure that we protect groundwater and drinking water adequately.

There is this long-term deadline where everything needs to be upgraded within 22 years or taken out of service. So there's this over-arching kind of pressure, time pressure, for the Navy to move all this work forward. And what we've also said is that, in the absence of good quality technical data to help support decisions, so we're having to make assumptions because we don't have the data, those assumptions are going to have to be conservative. So they — in my mind, the Navy is incentivized to do this work quickly and as high quality as possible in order to make the best technical decisions which could be the most effective and efficient, economically, decisions with changes and operations of the tanks moving forward.

CAPTAIN HAYES: And the work that this section entails is it informs a lot of the rest of the agencies. We want to make sure we do it right, just as your stakeholders and the public wants to make sure that we do it right, because they don't want to form a lot of the --

process -- processes till we understand how or if other wells, the Board of Water of Supply wells, and how our wells are impacted. So we're committed to doing it correctly and taking on board all the comments that were provided. We're accountable, per the AOC, to produce the product, and we're committed to that.

MR. JOSLIN: Do you think your rotation of commands will adversely affect the progress on that, though?

CAPTAIN HAYES: Rotation?

MR. JOSLIN: So leadership changing out and what not, the project handoff.

CAPTAIN HAYES: No. I mean, one, you've got me for the next couple years. We do build in -- I've got civilians that are working this, day in and day out. They don't rotate. We do build in turnover and continuity within it, so I don't see that as an issue.

CAPTAIN EPPS: Ryan, let me add to it, and I know there was some concern about that. In all honesty, Rich and I are really a pair of figureheads here. I mean, we're the leaders of our organization, but the folks who do this are the folks in the audience, who are typically civilians, who are trained engineers, who are trained fuel operators, and they'll be here for the duration. Like I said earlier, we got resources from the Navy to hire

someone, a fairly high senior engineer, to monitor this entire program and manage it going forward. So we are sent out mostly to represent Admiral Fuller because of our rank and our position. And, obviously, we have to be well-schooled on the nuances of environmental impact and the operation. This is something we do more as representing the Navy. We are proxy for the folks sitting out there who will be here for the duration and will see this through fruition.

MR. KAWAOKA: Thank you, Ryan.

Any other questions, comments?

MR. YOMES: Chair. This is for Mr. Linder. I'd like to utilize your expertise and your team's expertise in this question. I'm looking at a small scale, the example on a small scale, compared to the larger scale, what the Navy has. Gas station here in Hawaii, 75 years in operation, closes down. I would say 90 percent of the time, you'll find fuel contaminants underneath that ground, that has to be taken care of before they can sell the property on a small scale. When you speak of these monitoring wells, like Senator Wakai brought up, is it usual or unusual, after 75 years of, not just the Navy, or any company around the United States, is it usual or unusual to have those contaminants under the tanks?

MR. LINDER: I'd say, for the corner gas

stations, it's very common to have contaminants. But, again, it's kind of comparing apples and oranges --

MR. YOMES: You're right.

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MR. LINDER: -- Red Hill versus corner gas stations. A corner gas station, first of all, you're managing gasoline; and gasoline, as I said before, it's actually more mobile in the environment, more toxic than jet fuel and marine diesel. The other thing is, gas stations versus Red Hill, gas station, you typically have -- the construction is -- lot of them single wall, fiberglass, single wall steel, the older ones. New ones, we've come up with better technology. The modern array of gas stations is typically, even though some of them put in some fairly sophisticated systems, sometimes the people who are operating them aren't trained very well. one of the reasons why the new regulations have operator training, because it's been very common across the country, for these corner gas stations, for the people who are sitting there are really more operating more a convenience store than the tanks. The alarms go off; they don't even know what it means; they don't do anything about it. So comparing a gas station versus Red Hill, it's very -- it's different.

MR. YOMES: I understand that. But just for a common person that -- looking at this, is that the same

principle that you bring up with the monitoring wells? Is that the -- what you find underneath, after so many years, that's been in existence there, that you have this type of contamination, where there shouldn't be any contamination under these tanks?

MR. LINDER: I'd say the vast majority of facilities across the world that manage petroleum, you're going to find contamination under there. Really comes down to how much mass, how much is down there. Because, most situations, small leaks aren't going to cause any kind of exposure threat. It's where you have a big problem that can lead to a -- big release, large volumes, can lead to significant exposure threat.

I've worked on problems. I've worked on one big problem that made a lot of news in the Los Angeles area, where large volumes of gasoline were released from very busy gas stations near drinking water wells, and the gasoline additive, MTBE, ended up in the City of Santa Monica's drinking water wells. Well, there was large volumes of fuel, a very mobile contaminant, and it contaminated drinking water.

I've also worked with and seen a lot of facilities where they've had small releases and it stays under the facility, doesn't really migrate away from where it was released. They migrate a little bit and then

degrade. So fuel typically does not -- you know, it 1 2 actually degrades in the environment, and it doesn't --3 and it gets to a certain equilibrium as it spreads and stops because of chemical properties -- or the chemistry 4 5 underground, the degradation of biological activity. 6 So that's where what we're doing here at Red 7 Hill is we're really trying to study that, really 8 understand the hypothetical future releases and at what 9 level would it be a significant threat to drinking 10 water -- drinking water resources. 11 You know, our overall goal at EPA -- and I think 12 DOH shares it -- you know, we'd like to see no more 13 releases at Red Hill. But we -- obviously, we regulate to 14 levels that are safe, and that's where we are on our goal 15 here, is making sure that the facility is safe. 16 MR. YOMES: That leads into my second question 17 that Senator Wakai brought up, his valid concern of the 18 water. How, in your expertise, would this 19 contamination -- do you feel that this contamination can 20 get into the drinking water at this point as we speak 21 today? MR. LINDER: The contamination that we have --22 23 MR. YOMES: In the monitoring well getting into 24 the drinking water. 25 MR. LINDER: Well, I can tell you this, based on the information received to date, in terms of the Board of Water Supply wells, contamination moving to those wells, even though we have data gaps and we're trying to fill those, at this point, I'd say, we think it's very unlikely that that contamination, that mass -- from the tanks would get anywhere near the Board of Water Supply wells.

Trace levels could appear in the Red Hill shaft, but I think, given what we've seen, that anything that did show up would be well below any drinking water standard.

MR. YOMES: Thank you, sir.

MR. KAWAOKA: Any other comments?

Just let me conclude by saying I think this has been a very valuable and fruitful discussion. I sense that the task force wants to continue in this format, at least for the foreseeable future. I heard a request to kind of drill down from the 40- to the 30,000-foot level with more detail. I know, you know, Red Hill kind of overshadows everything, but, you know, we are dealing with field constructed tanks in general, so I think that request to get a little bit more -- I know it's in the public record, it's in our DOH files, as well as in the public records and other repositories. But I think, for this forum, and I think it goes to the very important aspects, like Senator Wakai said, about transparency and collaboration. But, also, that collaboration includes the

public as well, and we represent the public in general.

So I think, for the next meting, we need to make sure that we have that type of level of detail, not necessarily to the weeds level, per se, but at least enough information that we can say that, not just Red Hill, but the other field constructed tanks, are not further potential release into the environment.

As far as the frequency, I think we need to take

As far as the frequency, I think we need to take that under advisement right now. We'll check with staff and we'll get what the intent of the AOC is and as well as the legislation, and we'll determine whether that's a possibility to increase the frequency.

Question in the back?

MR. SHALEV: This is Omer Shalev, EPA Region IX.

I just wanted to point out that we -- the Order on Consent requires that they have annual public meetings on Red Hill specifically, just in terms of continuation of these meetings.

MR. KAWAOKA: But this particular Legislature --

MR. SHALEV: Right.

MR. KAWAOKA: -- does not include just Red Hill. It just calls for all fuel constructed tanks. That's why, I mean, we'll take that under advisement, and we'll check

24 | with the staff.

So, again, thank you for meeting today.

MS. PFENNING: Sorry. I would ask, certainly, 1 2 if we're going to increase the frequency, if the Army 3 isn't part of this conversation, that we not need to be here. And if there's a specific Army issue that comes up, 4 5 then we will gladly be here. But I wouldn't want to come 6 continually and be disappointed. And, you know, then we 7 just stop coming, and that's not a good look. So I would -- you know, if it's specific to us, then let us 8 9 know, and we'd be happy to be here. Unless it's legally 10 required to keep us on the list, then we will continue to 11 come. But I would just ask that you consider whether or 12 not it's appropriate to have us here, especially if we 13 move to a quarterly meeting. 14 MR. KAWAOKA: Any comments on that? You can 15 certainly come as an -- you're always invited. 16 MS. PFENNING: Well, thank you. 17 CAPTAIN EPPS: May we have closing comments? 18 MR. KAWAOKA: Sure. So, yeah, does anybody have 19 any closing comments before we end? 20 CAPTAIN EPPS: So I just wanted to reiterate, on 21 behalf of the Navy, if you take our badges and our 22 uniforms off and who we represent, I think that the common 23 goal in this room is just that. Our record, the Navy's 24 record, and the DOD's record on stewardship is very well

known. It is our boss Admiral John Fuller's top priority,

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as he has always said, the drinking water is safe, the 1 2 drinking water will remain safe, and we will put every 3 resource and practice that we have at our disposal to make 4 sure we continue that. So we welcome this. We welcome 5 this dialogue. We did not come to this with any 6 trepidation at all. This is helping us be better. 7 encourage the collaboration and discussion and the 8 openness here. I think, again, transparency is key, 9 talking is key. And I think the closer we all work 10 together and the more comfortable we are with working 11 together, we can get to that shared common goal that I 12 said. It surpasses uniform or badge or who we represent 13 today. Thank you. 14 MR. KAWAOKA: Any other comments? 15 If not, thank you for coming, again. 16 will adjourn. 17 (Meeting adjourned at 11:13 a.m.) 18 19 20 21 22 23 24 25

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3) SS: CITY AND COUNTY OF HONOLULU)
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